What is claimed is:

1. A semiconductor light emitting device comprising a light emission layer, consisting of a GaN system semiconductor, which is interposed between an n type GaN system semiconductor layer and a p type GaN system semiconductor layer, wherein there is provided a Ga-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film.

2. The semiconductor light emitting device according to claim 1, characterized in that associated with a quantity of doped Ga, with which the $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film is doped, wherein a carrier concentration is $1x10^{19}cm^{-3}$ or more and $5x10^{21}cm^{-3}$ or less.

3. The semiconductor light emitting device according to claim 1, characterized in that there is provided a metal electrode, which supplies an electric current to either the n type GaN system semiconductor layer or the p type GaN system semiconductor layer, and that said Ga-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film is formed between the n type GaN system semiconductor layer or the p type GaN system semiconductor layer, and the metal electrode.

4. The semiconductor light emitting device according to claim

3, characterized in that associated with a quantity of the doped Ga, with which the $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film is doped, wherein a carrier concentration is $1x10^{19}cm^{-3}$ or more and less than $5x10^{21}cm^{-3}$.

5. The semiconductor light emitting device according to claim 1, characterized in that there is provided a metal electrode, which supplies an electric current to either the n type GaN system semiconductor layer or the p type GaN system semiconductor layer, and that the metal electrode and the Ga-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film adjoin each other; and the metal electrode and the Ga-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film are arranged so as to be contiguous to the face of the n type GaN system semiconductor layer or the p type GaN system semiconductor layer and the metal electrode.

6. The semiconductor light emitting device according to claim 5, characterized in that associated with a quantity of the doped Ga, with which the $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode is doped, wherein a carrier concentration is $1x10^{19}cm^{-3}$ or more and less than $5x10^{21}cm^{-3}$.

7. A semiconductor light emitting device comprising a light emission layer, consisting of a GaN system semiconductor, which is interposed between a n type GaN system semiconductor

layer and a p type GaN system semiconductor layer, wherein there is provided a B-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film.

8. The semiconductor light emitting device according to claim 7, characterized in that associated with a quantity of the doped B, with which the $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode is doped, wherein a carrier concentration is $1x10^{19}cm^{-3}$ or more and less than $5x10^{21}cm^{-3}$.

9. The semiconductor light emitting device according to claim 7, characterized in that there is provided a metal electrode, which supplies an electric current to either the n type GaN system semiconductor layer or the p type GaN system semiconductor layer, wherein said B-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film is formed between the n type GaN system semiconductor layer or the p type GaN system semiconductor layer, and the metal electrode.

10. The semiconductor light emitting device according to claim 9, characterized in that associated with a quantity of the doped B, with which the $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode is doped, wherein a carrier concentration is $1x10^{19}cm^{-3}$ or more and less than $5x10^{21}cm^{-3}$.

11. The semiconductor light emitting device according to

claim 7, characterized in that there is provided a metal electrode, which supplies an electric current to either the n type GaN system semiconductor layer or the p type GaN system semiconductor layer, wherein the metal electrode and the B-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film adjoin each other and the metal electrode and the B-doped $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode film are arranged so as to be contiguous to the face of the n type GaN system semiconductor layer or the p type GaN system semiconductor layer and the metal electrode.

12. The semiconductor light emitting device according to claim 11, characterized in that associated with a quantity of the doped B, with which the $Mg_zZn_{1-z}O$ ($0 \leqq z<1$) electrode is doped, wherein a carrier concentration is $1x10^{19}cm^{-3}$ or more and less than $5x10^{21}cm^{-3}$.